Chapter 5
GD&S Program Management Plan

5-1. Introduction

a. Developing a corporate strategy for implementing geospatial technologies is the first step to implementing an enterprise solution. All USACE Commands are required to develop and maintain a GD&S Project Management Plan (GeoPMP). The GeoPMP is intended to fulfill the Mission Needs Statement (MNS) and Concept Studies Decision (CSD) requirements of the Life Cycle Management of Information Systems (LCMIS). Some of the considerations used by the Commands in developing their IP's include resolution, format and use of existing digital data; anticipated needs for future data and a GD&S model; compatibility of systems division-wide; roles and responsibilities; Information Management support needed; coordination of GD&S needs and uses across disciplines (e.g., Real Estate, Engineering, Planning and Construction, Operations); and costs.

b. Development and execution of a GeoPMP is necessary in order to guarantee the successful and effective operation and maintenance of a GD&S. The GeoPMP serves to supplement or update the GD&S Implementation Plan required in the August 1996 version of this EM. Thus, the GeoPMP is essentially a reiteration of the commitment and plan for GD&S at the command. Further, the GeoPMP is not a new requirement; rather it is a continuation of the requirement defined in the original EM. For implementing the GD&S Implementation plan, and specifically an Enterprise GIS at a command, the GeoPMP is an invaluable communication tool.

5-2   GeoPMP Development

a. The GeoPMP is intended to be a flexible document that provides the conceptual framework and coordinating principles for development of an enterprise GDS. The GeoPMP defines neither the system components nor the applications. Those very specific elements should have been addressed in the GD&S Implementation Plan. The GD&S Implementation Plan should be reevaluated as part of the development of the GeoPMP to ensure that both documents are consistent rather than contradictory.

b. It is important that the GeoPMP be developed by the GD&S PMT so that each part of the Command has an opportunity to influence the GeoPMP and they take ownership of both the process and the document. Because the GeoPMP affects the nearly entire organization the senior managers may be requested to sign-off on the GeoPMP prior to final signature by the Commander. This raises visibility and commits managers to the plan.

c. GD&S efforts can be categorized as either enterprise-wide or project-specific. Project-specific GD&S activities serve to help build the enterprise GD&S. Each project's data becomes part of the greater enterprise geospatial database, and thus available for supporting multiple other projects.

5-3. GeoPMP Contents

The GeoPMP should be kept as simple as possible. The following list is a recommended guide for the elements of the GeoPMP Most of these elements was included as part of the GD&S Implementation Plan Contents prescribed in the 1996 version of this EM, although the specific section titles may have been different.

- Project Title
- Team Members and Stakeholders
- Scope of the e-GIS (functions to be supported by e-GIS, description of products, unique requirements)
- Funding (source, budget, reporting of expenditures, establishment of RF5022--if applicable)
- Schedule (with appropriate entries in PROMIS, P2/P3E, etc)

- Work Breakdown Structure (who, what, when, resource estimates, milestones)
- Quality objectives (command and customer expectations, applicable criteria and regulations)
- Acquisition Strategy (identification of in-house and external resources to be used to develop the e-GIS)
- Change Management Guidelines (how and when the GeoPMP might change, and who approves changes)
- Communication Strategy (how the GD&S PMT will communicate internally and with outside customers)
- Issue Resolution Process
- Assumptions inherent in the Plan
- GD&S Program/Project Evaluation Plan
- Approvals (PMT Members' and Senior Leadership Signatures)

Comparison of GeoPMP Sections with GD&S Implementation Plan Sections

GeoPMP Section	Previous Implementation Plan Section*
Project Title	
Team Members and Stakeholders	
Scope of the e-GIS	b. Scope, e.(1) Scope of Exisiting and Proposed Systems, and f. Life Cycle Costs and Justification
Funding	
Schedule	g.(4) Time Frame
Work Breakdown Structure	g.(4) Time Frame
Quality objectives	c Design Guidance, and d.(6) Data Quality,
Acquisition Strategy	g.(3) Acquisition Strategy
Change Management Guidelines	h. Evaluation Plan
Communication Strategy	
Issue Resolution Process	
Assumptions inherent in the Plan	
GD&S Program/Project Evaluation Plan	h. Evalution Plan
Approvals	

* Section letters refer to section 5-2 of 1 Aug 96 version of EM 1110-1-2909

5-4 Implementing the GeoPMP

a. Once a command has established their Geospatial Project Management Plan, a number of management issues will arise. A critical management issue is the need for upper management support. By their approval of the Plan, the GD&S Oversight Committee has provided middle management approval and support. Thus, the Oversight Committee serves as an intermediary between the working staff levels and upper management.

b. USACE Command management needs to address funding to implement the Implementation Plan. This includes funding for the initial GD&S and geospatial data and funding for operations and maintenance (O&M). These O&M costs may need to be allocated to projects or may be charged to Command overhead. Funding for GD&S implementation entails considering the life cycle and staffing costs.

c. The costs that must be considered include:

- Initial software cost for software licenses.

- Initial hardware cost.

- Modifications to existing hardware that may be caused by the introduction of new hardware.

- Modifications to existing software that may be necessary to work in the new environment.

- Network implementation or modifications.

- Furniture and site modifications.

- Hardware installation.

- Software installation.

- Systems Integration services.
- System testing

- Staff training

- Software test.

- Data validation.

- Supplies such as media for data and output.

- Data collection and conversion of old data sets to new formats.

- Data maintenance.

- Supplemental utility programs.

- Maintenance contracts on hardware and software.

- Future system upgrades.

There may also be unique costs brought about by the requirement for posting Geospatial Data to the USACE National Spatial Data Infrastructure (NSDI) Clearinghouse Node. Costs; such as, internet connectivity and system administration, should be incorporated into District wide information technology costs. Costs associated with the NSDI Clearinghouse may include:

- Internet connectivity and system administration.

- Server hardware purchase and maintenance.

- Metadata creation for existing data sets.

- Maintenance of inactive data sets.
- Metadata distribution.

- Responding to data requests from Clearinghouse users.

Once the implementation is underway the management of expectations will begin. Here the goal is to deliver some operational capability through a pilot project that can be used to demonstrate capabilities using an initial geospatial database. This serves to show the capabilities in an USACE environment while delivering on a functional requirement and to achieve a first success which should solidify management support. At the same time it allows the beginning of staff training and provides a set of lessons learned for the larger implementations to follow.

   a. Revolving Fund Account for Facility Services. Because the cost of using GD&S technology is not insignificant, many District offices have established a Revolving Fund Account for funding GD&S technology within the District.. Revolving Fund account 5022 (RF5022) is the primary GD&S facility account, although 5021 (CADD) and 5024 (GPS) may also support some GD&S initiatives. There are four ways to fund the RF5022 account: Direct Charge, Standard Rate, Job Order, and Actual Cost. Details on establishing and funding a RF account are presented in RM 37-2-10 Chapter 16.

5-5.1   Mandatory Elements

Each Command shall develop a GD&S Program Management Plan (See 5-1a)